

Although Texas Hold'em is among the most popular poker variants, there are only a few effective ways to replace the human by a computer while playing it. Poker is a game with incomplete information, thus most of the approaches are complicated and they do not provide correct results most of the time.

The goal of this work is to describe some of the theoretical approaches and implement some of them. To this end, a poker server and poker AI agents using some of the solutions were implemented. These agents were tested against each other to compare the performance of the different approaches to artificial intelligence in Texas hold'em poker.